

We Claim:

1. A system for administering an examination comprising:

one or more testing stations, configured to receive a plurality of test items and to display the test items to a user, and wherein the one or more testing stations are further configured to record state information comprising time elapsed from the start of the examination, identification of test items displayed to the user, and user interactions with the testing stations;

a first server computer system in communication with the one or more testing stations, wherein the first server computer system is configured to electronically transmit the test items to the one or more testing stations and to receive user information and responses to the test items from the one or more testing stations, and wherein the first server computer system is further configured to receive the state information from the one or more testing stations and to electronically store the state information; and

a second server computer system in communication with the first server computer system, wherein the second server computer system is configured to receive user information and responses to the test items from the first server computer system and to deliver test packages to the first server computer system.

2. The system of claim 1 wherein the first server computer system communicates with the one or more testing stations via a distributed network.

3. The system of claim 2 wherein the distributed network is the Internet.

4. The system of claim 1 wherein the one or more testing stations are further configured to store the test items in volatile memory.

5. The system of claim 1 wherein the first server computer system comprises:

one or more computers configured to perform the functions of a web server, a servlet engine and an application server; and

one or more data storage devices.

6. The system of claim 1 wherein the one or more testing stations are further configured to periodically deliver to the first server computer system changes to the state information.

7. The system of claim 1 wherein the one or more testing stations are further configured to deliver to the first server computer system changes to the state information upon the user interacting with the testing station.

8. The system of claim 1 wherein the second server computer system comprises:

one or more computers;

one or more data storage devices; and

a package migration tool configured to properly format the test packages prior to delivery to the first server computer system.

9. The system of claim 8 wherein the package migration tool is further configured to manage the use of subsequent versions of the test packages.

10. The system of claim 1 wherein the second server computer system is further configured to score the responses to the test items.

11. The system of claim 1 wherein the examination is a linear examination.

12. The system of claim 1 wherein the examination is an adaptive examination.

13. A method of administering an examination to a user over a distributed network comprising:

synchronizing an initial state object on a server and on one or more testing stations in communication with the server, wherein the initial state object comprises the time within which the examination must be completed and the test items to be presented to the user;

delivering a plurality of test items to one or more testing stations;

displaying the plurality of test items to the user and recording the users responses; and delivering to the server a changed state object comprising the time elapsed in the examination, the test items presented to the user, and the user's responses to the test items.

14. The method of claim 13, wherein the changed state object is delivered to the server upon a triggering event occurring on the testing station.

15. The method of claim 14, wherein the triggering event is the passage of a predetermined period of time.

16. The method of claim 14, wherein triggering event is the user interacting with the testing station.

17. The method of claim 13, wherein the examination is an adaptive examination.

18. The method of claim 13, wherein the examination is a linear examination.

19. The method of claim 13, wherein upon failure of the testing station, the initial state object and the changed state objects stored on the server are used to recreate the examination on the testing station at the point of the examination where the failure occurred.

20. A method of managing the state of an examination, the method comprising:

delivering identification of the examination to be administered on one or more testing stations to a server computer;

creating an initial state object on the server computer wherein the initial state object defines the initial state of the examination;

delivering the initial state object to the one or more testing stations;

recording each user interaction with the one or more testing stations; and

delivering changes to the initial state object from the one or more testing stations to the server computer.

21. The method of claim 20, further comprising:

restarting the examination following failure of the testing station wherein the initial state object and the changes to the initial state object stored on the server computer are used to recreate the examination on the testing station at the point the examination where the failure of the testing station occurred.

22. A method of delivery test items to a testing station for purposes of presenting an examination to a user, the method comprising:

creating a cache list on a server computer wherein the cache list comprises identification of test components to be delivered to the testing station;

delivering the cache list to the testing station;

delivering a first set of the test components to the testing station, wherein the first set of the test components are delivered at commencement of the examination; and

delivering one or more subsequent sets of the test components to the testing station upon occurrence of a trigger event on the testing station.

23. The method of claim 22, wherein the step of delivering the one or more subsequent sets of the test components is performed to maintain a predetermined number of undisplayed test components on the testing station.

24. The method of claim 22, wherein the test components are used to create test items.

25. The method of claim 22, wherein the trigger event is an interaction of the user with the testing station.

26. The method of claim 22, wherein the examination is a linear examination.

27. The method of claim 22, wherein the examination is an adaptive examination.